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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/722,953 | 11/26/2003 | Stephen E. Fuks | 10541-1916 | 9009 |

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| EXAMINER |
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BROWN, DREW J

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| ART UNIT | PAPER NUMBER |
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3616

DATE MAILED: 01/24/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|--------------------------------------|------------------------------------|--|
| Office Action Summary | Application No. 10/722,953 | Applicant(s) FUKS ET AL. | |
| | Examiner Drew J. Brown | Art Unit 3616 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 November 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 and 8-14 is/are rejected.
- 7) ☒ Claim(s) 7 and 15 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date: _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>1/20/04</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Objections

1. Claim 2 is objected to because of the following informalities: In line 1, "wherein contact surface" should be changed to --wherein the contact surface--. Appropriate correction is required.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1, 3-5, 8, 9, and 11-13 are rejected under 35 U.S.C. 102(b) as being anticipated by Redgrave et al. (U.S. Pat. No. 6,135,495).

With respect to claims 1 and 9, Redgrave et al. discloses a contact surface (17) for interacting with the vehicle occupant, a fixed energy absorption device (20) attached to a structural member (12) of the vehicle, a deployable energy absorption device (19) in contact with the contact surface (via the member between contact surface 17 and rib 27 in Figure 1) and the fixed energy absorption device, and an energy absorption modifier (18) in communication with the fixed energy absorption device for varying the energy absorption characteristics of the fixed energy absorption device.

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With respect to claims 3, 4, 11, and 12, the fixed energy absorption device is a deformable (deforms at bend line 30 in Figure 2) metal bracket that is U-shaped (U-shape formed by top plate 21, rear wall 23, and bottom plate 22).

With respect to claims 5 and 13, the deployable energy absorption device is an inflatable airbag.

With respect to claims 8 and 9, a frangible structural member (member between contact surface 17 and rib 27 in Figure 1) is connected at a first end to the contact surface and at a second end to the structural member of the vehicle (12, via fixed energy absorption device 20).

4. Claims 1 and 5 are rejected under 35 U.S.C. 102(e) as being anticipated by Arwood et al. (U.S. Pub. No. 2005/0062264 A1).

With respect to claim 1, Arwood et al. discloses a contact surface (42) for interacting with the vehicle occupant, a fixed energy absorption device (54) attached to a structural member (10) of the vehicle, a deployable energy absorption device (18) in contact with the contact surface and the fixed energy absorption device, and an energy absorption modifier (38) in communication with the fixed energy absorption device for varying the energy absorption characteristics of the fixed energy absorption device.

With respect to claim 5, the deployable energy absorption device is an inflatable airbag.

Claim Rejections - 35 USC § 103

5. Claims 2 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Redgrave et al. in view of Schneider et al. (U.S. Pat. No. 5,775,729).

Redgrave et al. discloses the claimed invention as discussed above but does not disclose that the contact surface includes a deformable foam layer. Schneider et al., however, does disclose a contact surface with a deformable foam layer (73). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the invention of Redgrave et al. in view of the teachings of Schneider et al. to have a deformable foam layer on the contact surface in order to provide cushioning for the occupant even when the knee bolster does not deploy.

6. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Arwood et al. in view of Schneider et al. (U.S. Pat. No. 5,775,729).

Arwood et al. discloses the claimed invention as discussed above but does not disclose that the contact surface includes a deformable foam layer. Schneider et al., however, does disclose a contact surface with a deformable foam layer (73). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the invention of Arwood et al. in view of the teachings of Schneider et al. to have a deformable foam layer on the contact surface in order to provide cushioning for the occupant even when the knee bolster does not deploy.

7. Claims 6 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Redgrave et al.

Redgrave et al. discloses the claimed invention as discussed above but does not disclose that the energy absorption modifier is a pyrotechnic device. However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use a pyrotechnic inflator for the inflation means since it was old and well known in the art that pyrotechnic inflators are used to inflate airbags and have inflation characteristics similar to those of gas generators.

8. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Arwood et al.

Arwood et al. discloses the claimed invention as discussed above but does not disclose that the energy absorption modifier is a pyrotechnic device. However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use a pyrotechnic inflator for the inflation means since it was old and well known in the art that pyrotechnic inflators are used to inflate airbags and have inflation characteristics similar to those of gas generators.

Allowable Subject Matter

9. Claims 7 and 15 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

10. The following is a statement of reasons for the indication of allowable subject matter: The prior art fails to disclose a system comprising a contact surface, a fixed energy absorption device, a deployable energy absorption device, and an energy absorption modifier, where the

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energy absorption modifier is a pyrotechnic bolt that disconnects the fixed energy absorption device from the structural member of the vehicle.

Conclusion

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Rose, Lang et al., Schneider, Kumagai, Aibe et al., Enders, Bosgieter et al., and Nakajima et al. disclose similar systems for contacting a vehicle occupant during sudden deceleration of the vehicle.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Drew J. Brown whose telephone number is 571-272-1362. The examiner can normally be reached on Monday-Thursday from 7 a.m. to 4 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul N. Dickson can be reached on 571-272-6669. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Drew J Brown
Examiner
Art Unit 3616

DJB
1/9/05

Handwritten signature of Paul N. Dickson, dated 1/19/06.

PAUL N. DICKSON
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3600